Case Reports

SERIES OF UNUSUAL SURGICAL CONDITIONS

By Dr. A. T. Bazin

Case 1. Hour-glass stomach, due to traction of an umbilical hernia. About a year ago I presented to the Society two cases of hour-glass stomach, the one cicatricial, the other spasmodic, due to saddle ulcer over the lesser curvature. The present case demonstrates a third variety.

Mrs. D., aged sixty-five, was admitted to the General Hospital, February 12th, 1915, referred by Dr. N. M. Cooper of Ormstown and giving the following history: Throughout her lifetime she enjoyed exceptional health, but for thirty years has had an umbilical hernia, which has gradually increased in size and for which she could find no comfortable support. Always a hearty eater, no indigestion.

The present illness began in April, 1914, at which time she weighed 307 pounds. Without apparent cause the patient would vomit, usually in the late afternoon or evening, and would feel normal and hungry in the morning. No pain, discomfort or nausea until just before vomiting set in. Attacks recurred about every fortnight, but became increasingly frequent to three or four times per week. She learned to use the stomach tube and had daily lavage; dieted on milk and eggs, etc., and became markedly constipated. Lost flesh rapidly till on admission she weighed 187 pounds, a loss of 120 pounds. In the preceding weeks had also lost strength but continued to do her housework.

On admission: The skin is loose, dry and wrinkled; the abdomen lax and sunken; umbilical hernia present, base four inches in diameter, and projecting about five inches, tympanitic, contents adherent to sac and cannot be reduced. Bowels had not moved for over a week and scybalous masses fill the descending colon.

Myocarditis present. The urine is normal except for presence of large quantities of acetone; in the stools, no occult blood. Blood: erythrocytes 4,700,000, leucocytes 7,600, hæmoglobin 70 per cent.

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Stomach contents: No marked retention (test meal given in the forenoon and patient in bed); free HCl., 65; total acidity, 100; no lactic acid; occult blood positive; a few yeast cells present. Skiagram: Barium sulphate meal shows a definite hour-glass due to traction of greater curvature into neck of hernial sac.

Operation February 19th: Transverse elliptical incision and radical cure of hernia by Mayo's method of reduplication of rectus sheaths. Contents were omentum and large loop of transverse colon all bound together and to the sac by strong bands of adhesions. The greater curvature of the stomach was pulled down to the level of the hernial ring and at this point the gastro-colic omentum showed an area of fibrosis caused by friction against the ring.

Freeing of the adhesions and returning the colon restored the stomach to normal shape. In spite of the tremendous loss of weight the transverse meso-colon was from two to three inches thick with firm fat between its layers through which the duodenal-jejunal flexure was tunnelled.

I will not detail the convalescence; it was an extremely stormy one. Vomiting was a marked feature from the first and due to two causes, namely, acetonæmia, which was combated by daily subcutaneous soda bicarbonate solution, 3 per cent., in large quantities, and dilatation of the stomach due to, I think, obstruction at the duodenal-jejunal junction. When one considers the thickness of firm fat in the transverse meso-colon and that for nearly thirty years this structure had been standing out almost at right angles from its attachment to the posterior abdominal wall and entering the hernia, it is easy to conceive that the sudden alteration in its direction would so squeeze the duodeno-jejunal junction passing through it as to cause obstruction. This cause of vomiting was in turn met by posturing the patient in an inverted position, by stomach lavage and liquid paraffin introduced through the stomach tube. At no time did the bowels give trouble, responding freely to enemata of various kinds. Syncopal attacks were alarming from time to time and on the ninth day a hypostatic pneumonia developed on the left side.

She was discharged March 13th, twenty-two days after operation, being conveyed to her home in the country by ambulance and stretcher. The condition on discharge showed the wound healed and firm. The suture line was fourteen inches long, closed by tension sutures, which were removed on the seventh day and Michel clips removed on the fifth day. She was taking nourishment freely and without discomfort; the urine was normal except for some albumin and pus cells due to cystitis, consequent upon cathe-

terization having been required. Pulse 80, but dyspnœa and orthopnœa on slightest exertion and heart somewhat enlarged.

At the latest report, May 17th, she is able to move about the house and take short walks.

CASE 2. Pre-natal volvulus of small intestine.

On October 5th, 1909, a robust female child was born at 8 a.m. after a natural, easy labour on the part of the mother, this being her ninth child. During the first twenty-four hours the child cried lustily and frequently as if in pain; urinated freely but passed no meconium and vomited a greenish fluid several times. In the forenoon of the day following birth, examination showed an evenly distended abdomen with no mass palpable; anal orifice normal and finger passed into anal canal $1\frac{3}{4}$ inches found a capacious bowel cavity the top of which could not be reached; the finger was not stained with meconium. In the afternoon enema given with soft rubber catheter which could be passed four or five inches; enema expelled after three or four ounces had been given. No stool, no flatus, but a large quantity of inspissated opaque white mucus.

On October 6th, operation at 8 p.m., thirty-six hours after birth, chloroform anæsthesia. Anal canal: finger passed into capacious gut which at level of pelvic brim suddenly narrowed to admit only the tip of the little finger. Gut was empty, no meconium stain; no bulging colon to be felt above. Abdominal incision: through left rectus below level of umbilicus. On opening peritoneum a quantity of blood-stained serum escaped and the small bowel presented, this was purplish in colour and distended to $1\frac{1}{2}$ inches in diameter. Neither sigmoid nor cæcum could be palpated. A loop of the distended small bowel was secured and the fingers passed to the mesenteric root which was found to be twisted upon itself. Rapid evisceration was done, which demonstrated that from three to four feet of ileum and jejunum were involved in a volvulus of $1\frac{1}{2}$ turns from left to right. There were no adhesions and the malposition was easily corrected, hot towels being applied to the gut. With the abdomen thus emptied it was seen that the upper part of the small intestine was normal in size, though dark and congested and filled with fluid and gaseous contents. The distended portion of the small gut also contained gas and fluid but towards the lower end the contents became more and more firm and about four inches from the ileo-cæcal valve became scybalous in character. The cæcum and all of the colon were represented by a firm contracted cord about 7 mm. in diameter filled with hard nodules giving it the feeling and appearance of a string of beads.

As no relief was evident an enterostomy was done in a loop of ileum about five inches from the cæcum and a small Paul's tube inserted. The flow of meconium had to be assisted by passing a small catheter along the tube into the gut and washing out with saline. In this way the small intestine was emptied; it regained normal colour and size and it was then possible to return it to the abdominal cavity, the Paul tube being brought out of the original incision, which was closed with through and through silk-worm gut sutures.

On the following day the tube discharged freely; there was only occasional vomiting; water taken by mouth. In the early morning of the 8th and throughout the day the bowels moved naturally per anum; frequent vomiting during the forenoon and early afternoon; some distension of the epigastrium, which lessened towards evening, and vomiting ceased. The child slept most of the time but would not nurse; water with whiskey given. On the 9th stomach distended; lavage followed by improvement. 10th, Paul's tube came away, suture having cut through; stools are lighter in colour; nursing vigorously, no vomiting. On the 11th, no stool per anum, profuse discharge from fistula, sutures cut through and wound gapes; no vomiting, nursing well. 12th, profuse watery discharges from fistula with much partially digested milk. In the evening a severe hæmorrhage from the base of the umbilical cord and the child died, six days after operation, seven and a half days after birth; no autopsy allowed.

Observations and deductions: Usually intestinal obstruction in the new-born results from some form of imperforate anus or maldevelopment of the hind gut. The present case adds to the etiological factors of that condition. The thinned out intestinal wall, as also the abdominal wall, weakened by the distension and macerated by the discharges, led to the early cutting out of the sutures. If I had not acted on the supposition that the inspissated nodules of mucus in the colon would have proved an unsurmountable obstacle to peristalsis and had omitted the use of Paul's tube, contenting myself with a simple enterotomy to empty the intestine followed by suture of intestine and complete closure of the abdominal wall, the outcome might have been different.

Case 3. Double inguinal hernia in a marantic infant.

Baby M., male, aged five and one-half months, referred by Dr. W. M. Fisk, August 22nd, 1913. The child was a seven-months' baby, labour having been induced on account of the suffering and ill health of the mother who had had a ventro-suspension eighteen

months before. Weight at birth four pounds. Bottle fed from the start and gained but slowly with considerable digestive disturbance. One month prior to operation these symptoms increased, vomiting occurred after almost every feeding and crying from colic was incessant; the child was rapidly failing. At birth the right inguinal region was prominent but not until the baby was three and a half months old did definite hernia manifest itself, first on the left, later on the right side; a rubber truss was applied which failed to hold the herniæ.

Examination showed both testicles in normal position. The left hernia was reducible; the right reducible except for a narrow elongated mass which remained in the sac and which was tender to pressure, leading to a diagnosis of appendix adherent in the sac.

Operation confirmed these findings, the contents of the left sac being sigmoid and of the right sac the cæcum and appendix; the tip of the appendix was bulbous and firmly adherent to the bottom of the sac.

Recovery from operation was uneventful and there was immediate improvement in the digestive ailment, vomiting was only occasional, colic infrequent and there was steady gain in weight. Unfortunately when one year old the child developed bronchopneumonia which caused its death.

A word as to an important detail in the post-operative treatment of similarly-placed wounds in infants. I apply no dressings and do not allow a diaper to be used. The incision, which is closed with Michel clips, is painted with Tr. Iodine daily until the clips are removed on the fourth day. In this way the wound remains dry and healing is prompt.